NATURAL HISTORY OF ANIMALS. *By Prof. Sanborn Tenney and Mrs. Abby A. Tenney.* New York, 1866. Scribner & Co. 12mo.

This little work, as the title indicates, presents in a general way the Natural History of Animals. The illustrations are mainly the same as those contained in a previous work by Prof. Tenney on Natural History. The figures are mostly drawn from American sources, and the book will be found quite useful to those who wish to obtain a knowledge of our native animals. As the work is intended for beginners, the style is plain and free from technicalities. Yet we regret the absence of the technical names, for we believe that on all occasions, the scientific name of an animal should be coupled with its common one, so that gradually the popular mind may become accustomed to the use of that which is so essential to a proper understanding of the study, and more particularly, a clear appreciation of the value of classification.

ON THE YOUNG STAGES OF A FEW ANNELIDS. *By Alexander Agassiz.* From the Annals of the Lyceum of Natural History, New York. Vol. viii., p. 303. June, 1866, 6 plates, pp. 40. 8vo.

In this interesting article we find accounts of the early lives of some of our common marine worms. Though necessarily fragmentary, from the difficulty of obtaining these creatures in all their stages of growth, yet such facts as we here learn about the early stages of the Nereda-like worm, are of the highest interest to the philosophic naturalist.

This worm is a long, narrow, smooth-bodied Nemertean, with two eye-specks on the head. The absence of the locomotive bristles and tentacles, found in the higher worms, such as Nereis, show its near relationship to the intestinal worms. But the metamorphosis is remarkable. The young is provided with two tentacles, which in the course of development drop off, thus affording us an instance of a retrograde course of development in the class of worms, like the Barnacle among Crustacea, the young of which have feet and antennæ, as in the little water fleas (Entomostraca), while in advanced life these limbs mostly drop off, and the animal would easily be mistaken for a shell fish.

We quote some directions for observing and collecting these young worms, so interesting as objects for the microscope:

Johannes Muller was the first who successfully employed surface dredging with a fine gauze net; he has been followed with eminent success by many of his pupils, and now scooping the surface of the sea in search of diminutive animals, scarcely to be recognised with the naked eye, is one of the most profitable sources of supply for recent investigators at the sea-shore. Baur has introduced fishing with the gauze net by sinking it to any desired depth, and this promises to be a fruitful mode of finding what cannot be reached with the hand net. Meyer and Mobius, in their investigations of the Fauna of the Bay of Kiel, have even attempted, with remarkable good fortune, to pump up from the vicinity of the bottom any animals there abounding.

Artificial fecundation can do much towards adding to our knowledge of the early stages

of marine animals, but any one who has lived at the sea-shore and endeavored to keep alive these tiny creatures, will soon find in this method insurmountable obstacles to pursuing his investigations beyond very narrow limits. The only way is to go to the fountain head at once, to make oneself familiar with the currents at all hours of the tide and under all possible influences of wind; to notice the place where opposite currents meet, and throw into long bands the wealth of animal life they have swept along; to become so perfectly familiar with what you may expect to find under certain conditions, that no time shall be lost in looking for the most favorable spot which otherwise you would only stumble upon accidentally. The habitat of the adult animals should be carefully observed, so that by surface dredging with the fine gauze hand-net in the vicinity of their abodes, and by a close attention to the direction which the currents take from these places, at the time of breeding, we can often obtain specimens at all ages and of all sizes, till they have ceased to be nomadic or have assumed the habits they retain in their adult condition.

NATURAL HISTORY MISCELLANY.

BOTANY.

THEORY OF THE ORIGIN OF THE ANTHER OF FLOWERS.—Dr. Müller read a memorandum of the monstrosities which he had met with in the flower and fruit of the *Jatropha pohliana*, and deduced therefrom some conclusions on the theory of the anther. He thinks that this is formed neither by the combination of two ordinary leaves, nor by a leaf whose edges are incurvated towards the median rib, so as to form the two chambers of the pollen. He believes that the anther represents only a single leaf, and that the pollen is developed in the incrassated tissue of the parenchyma of this leaf.—*Report of the Transactions of the Society of Physics and Natural History of Geneva*, 1863-5. *Smithsonian Report*, 1865.

PHYSIOLOGICAL EFFECTS OF THE CALABAR BEAN.—Dr. Dor read a memoir on the physiological effects of the bean of Calabar, *Physostigma venenosa*. Studied specially in its effects on the eye, this substance produces contraction of the pupil, and occasions a sort of cramp of the accomodator muscle. In this double relation it acts as an antagonist of the atropina.—*Ibid.*

SKELETON LEAVES.—The following method has been communicated to the Botanical Society of Edinburgh:—"A solution of caustic soda is made by dissolving 3 oz. of washing soda in 2 pints of boiling water, and adding 1½ oz. of quick lime, previously slacked; boil for ten minutes, decant the clear solution and bring it to the boil. During ebullition add the leaves; boil briskly for some time—say an hour, occasionally adding hot water to supply the place of that lost by evaporation. Take out a leaf and put into a vessel of water, rub it between the fingers under the water. If the epidermis and parenchyma sepa-